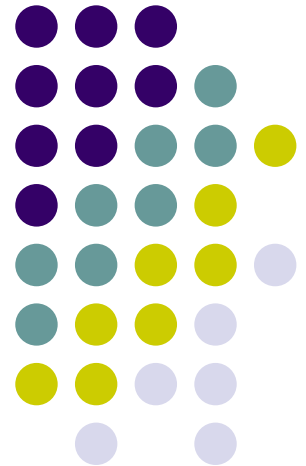




*Pacific Gas and  
Electric Company™*

**California Resources Agency**  
**Workshop on LNG Access Issues  
and the Deliverability of Supply**

**Robert T. Howard**  
**Vice President**  
**Pacific Gas and Electric Company**



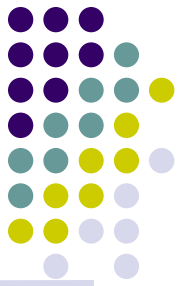
**June 1, 2005**



# Today's Topics

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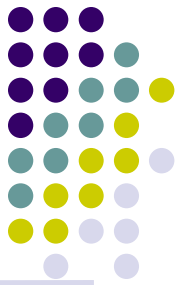
- Overview of PG&E's natural gas business
- PG&E's views on natural gas supply issues



# Overview of PG&E's Gas Business

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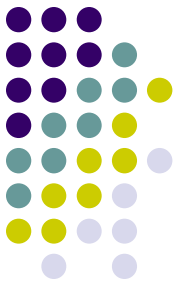
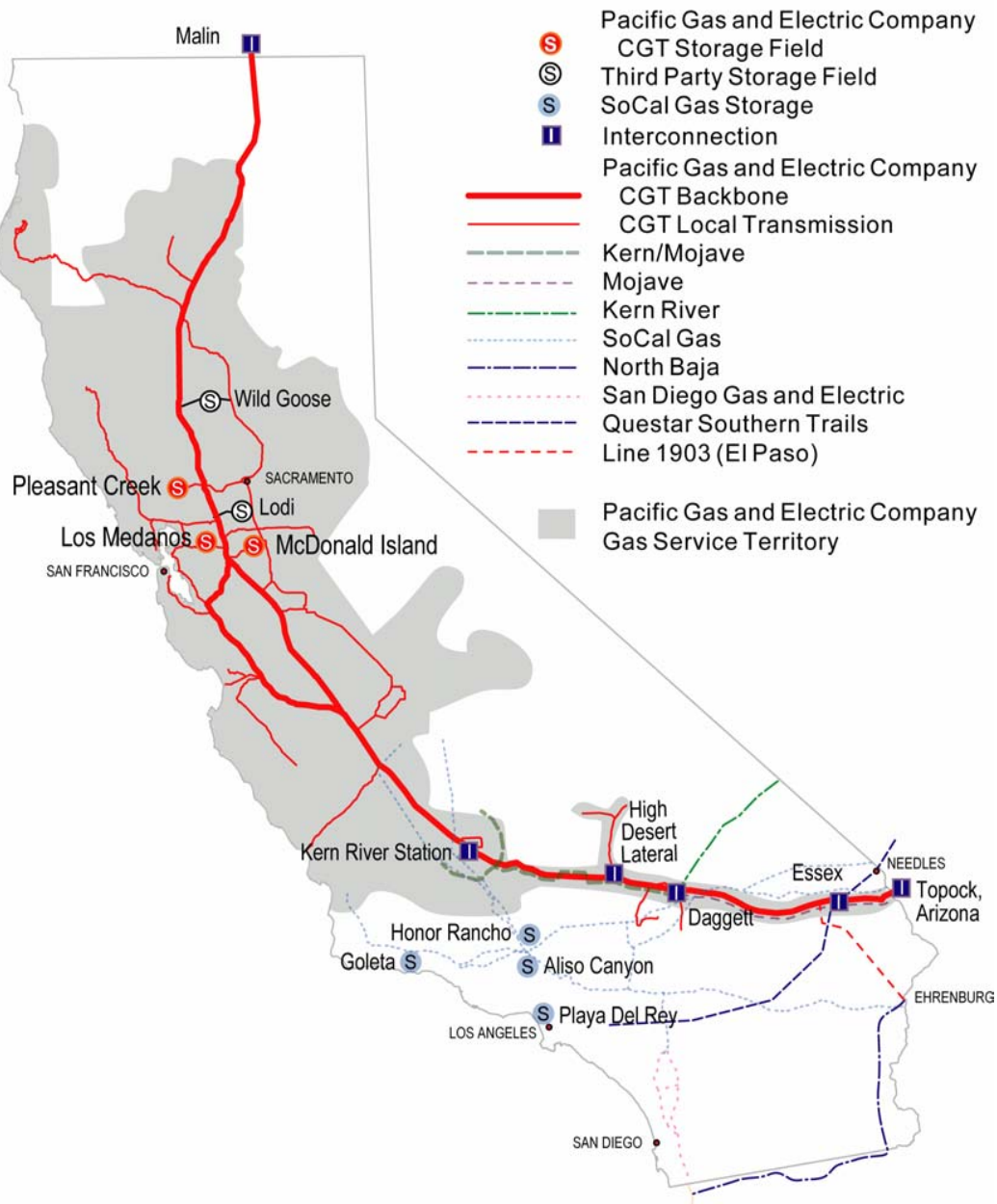
- PG&E is a major purchaser of natural gas for Core gas customers and for gas-fired electric generation
  - 3.9 million gas customer accounts
    - 2005 forecasted Core load of about 800 MDth/d
    - Daily core procurement demand fluctuates seasonally; summer averages about 500 MDth/day, while Dec/Jan averages about 1,500 MDth/day
  - PG&E holds firm transportation rights on the interstate pipelines serving California, and buys the majority of its supplies for the core market in the basins
  - The gas procurement needs for PG&E-owned and tolled electric generation is growing



# Overview of PG&E's Gas Business

- PG&E provides open access natural gas transportation services, including tradable capacity rights for transportation services, under its “Gas Accord” market structure.
  - PG&E's gas transmission facilities serve both northern California and off-system customers in southern California
    - 2005 forecast average throughput of about 2,400 Mdth/d
    - 2004 peak day throughput volume of 3,965 MDth
    - Firm backbone transportation delivery capacity of about 3,200 Mdth/d
  - PG&E's gas transmission and distribution facilities:
    - Approx. 2,000 miles of backbone transmission facilities
    - Approx. 4,300 miles of local transmission facilities
    - Approx. 40,000 miles of distribution facilities
  - PG&E's 3 gas storage fields (McDonald Island, Pleasant Creek and Los Medanos):
    - 42 Bcf of storage cycling capacity
    - Peak firm withdrawal capacity of about 1.6 Bcf/day serving up to one-third of the demand on a winter peak day
    - PG&E is the 11<sup>th</sup> largest storage provider in the United States and McDonald Island is the 4<sup>th</sup> largest reservoir in the United States
- PG&E is interconnected with four interstate pipelines (El Paso, Transwestern, Kern River, and Gas Transmission-Northwest), and with two independent storage providers (Wild Goose and Lodi Gas Storage).

## California Pipeline/Storage Facilities

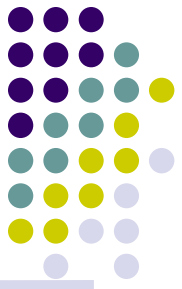


## PG&E's Firm Delivery Capacity (MMcf/day)

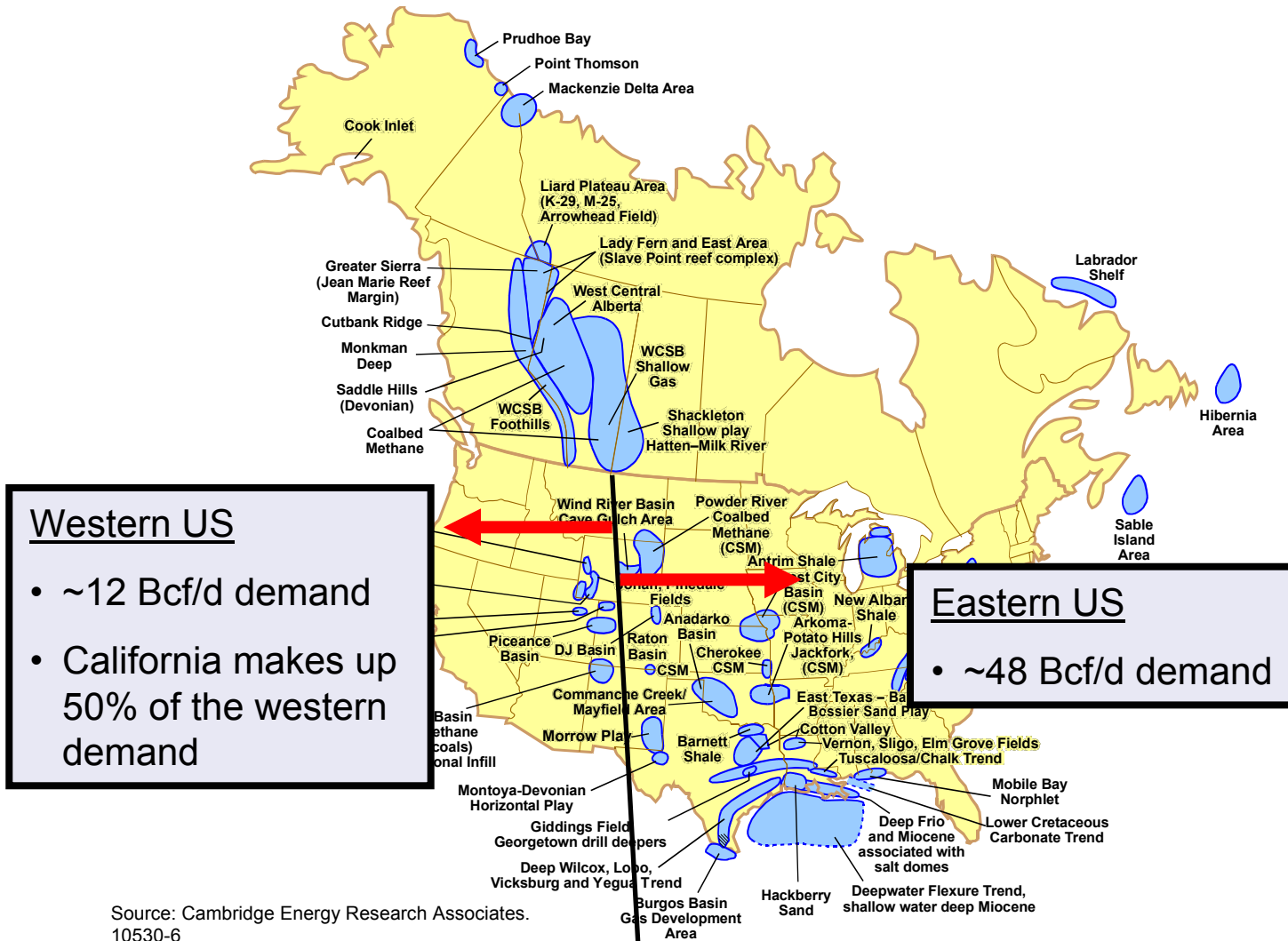
Southern Pipeline*	1,085
Northern Pipeline*	approx. 1,954
California Gas	150-200
Storage Cycle Capacity	42 Bcf
Storage Injection**	316
Storage Withdrawal**	1,360

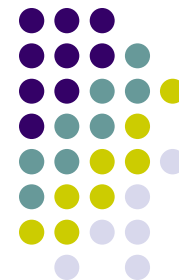
\* Excluding SMUD equity

\*\* Varies with field pressure



# Regional Gas Demands in the US





# Pipeline and LNG Capacity Additions

## Regional Dollar Expenditure (\$million)

	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>Total</u>
\$ Spent in West	29	96	830	1673	315	\$ 2,943
\$ Spent Rest of US	2,305	1,580	3,540	1,892	1,330	\$10,647
Total	2,334	1,676	4,370	3,565	1,645	\$13,590

## Percentage

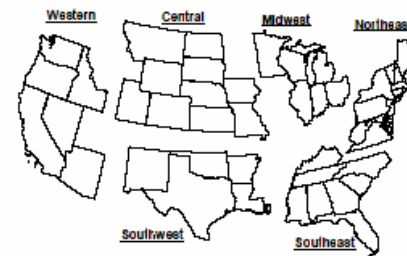
	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>Total</u>
\$ Spent in West	1%	6%	19%	47%	19%	22%
\$ Spent Rest of US	99%	94%	81%	53%	81%	78%

## Regional Capacity Additions (Bcf/d)

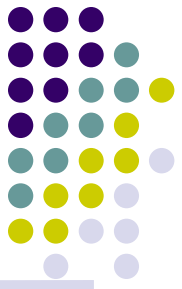
	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>Total</u>
Western Capacity	157	310	2,352	1,668	1,083	5,570
Other Capacity	6,976	8,952	10,260	9,020	5,704	40,912
Total	7,133	9,262	12,612	10,688	6,787	46,482

## Percentage

	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>Total</u>
Western Capacity	2%	3%	19%	16%	16%	12%
Other Capacity	98%	97%	81%	84%	84%	88%



Source: Energy Information Administration, Office of Oil and Gas

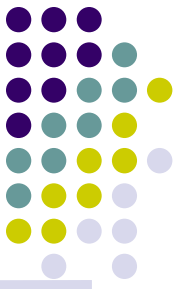


## PG&E's Involvement in LNG-related Issues

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- PG&E has been active in gas quality and interchangeability proceedings, both nationally and in California
  - Working with AGA, SoCalGas, and others
- PG&E will be involved in the SoCalGas/SDG&E firm access rights proceeding to help ensure PG&E customers will have access to LNG supplies
- PG&E will continue to be an advocate for a working group of the CEC/CPUC and the utilities to examine natural gas issues





## PG&E's View on Natural Gas Supplies

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- The tight supply/demand balance for natural gas in North America is one of the key factors in keeping California gas prices at relatively high levels.
- PG&E sees a need for new supplies from non-traditional sources
  - California's two most promising sources of non-traditional new supplies are LNG and an Alaskan pipeline, but LNG will arrive much sooner than Alaskan supplies.
- Our customers stand to benefit from direct access to new sources of supply to enhance gas-on-gas competition.
- PG&E will consider purchasing LNG to the extent that it becomes available at a competitive price relative to our other supply alternatives.
  - PG&E is monitoring the progress of west coast regasification development